

PATENT

Attorney Docket No.: 28594/38247

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**INFORMATION DISCLOSURE STATEMENT  
PURSUANT TO 37 C.F.R. §§ 1.56, 1.97, AND 1.98**

Commissioner for Patents  
Box PCT  
Washington, D.C. 20231

Sir:

In compliance with 37 C.F.R. §1.97 and the continuing duty of disclosure under 37 C.F.R. §1.56, the applicants call to the attention of the examiner the enclosed publications, as listed on the attached Form PTO/SB/08A, which may be considered material to the examination of the above-identified patent application.

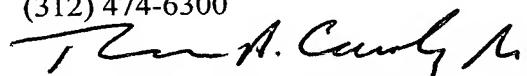
This information disclosure statement is not intended to be an admission that a search has been made, that other relevant art does not exist, or that any of the information disclosed herein constitutes prior art under 35 U.S.C. §102 or 35 U.S.C. §103.

This information disclosure statement is submitted before receipt of a first official action on the merits and consequently should be considered by the Patent Office without payment of a fee [see 37 C.F.R. §1.97(b)]. However, should the Patent Office determine that a fee is due for consideration of this information disclosure statement and accompanying publications, the Patent Office is hereby authorized to charge said fee to Deposit Account No. 13-2855.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN  
6300 Sears Tower  
233 South Wacker Drive  
Chicago, Illinois 60606-6402  
(312) 474-6300

By:



Thomas A. Cawley, Jr., Ph.D.  
Reg. No.: 40,994

June 18, 2002

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|-------------------------------|---|----|---|--------------------------|-------------------|
| Substitute for form 1449A/PTO |   |    |   | <b>Complete if Known</b> |                   |
|                               |   |    |   | Application Number       | 10/049,953        |
|                               |   |    |   | Filing Date              | February 19, 2002 |
|                               |   |    |   | First Named Inventor     | Shannon et al.    |
|                               |   |    |   | Art Unit                 | To be assigned    |
|                               |   |    |   | Examiner Name            | To be assigned    |
| Sheet                         | 1 | of | 2 | Attorney Docket Number   |                   |
|                               |   |    |   | 28594/38247              |                   |

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant<br>of Cited Document |
|--------------------|-----------------------|------------------------------------------|--------------------------------|----------------------------------------------------|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |                                                    |
| A1                 | 5,591,632             |                                          | 01/07/1997                     | O'Donnell et al.                                   |
| A2                 | 5,614,381             |                                          | 03/25/1997                     | Bromley et al.                                     |
| A3                 | 5,736,146             |                                          | 04/07/1998                     | Cohen et al.                                       |
| A4                 | 5,747,332             |                                          | 05/05/1998                     | Wallen et al.                                      |
| A5                 | 5,776,465             |                                          | 07/07/1998                     | O'Donnell et al.                                   |
| A6                 | 5,789,245             |                                          | 08/04/1998                     | Dubensky Jr. et al.                                |
| A7                 | 5,830,464             |                                          | 11/03/1998                     | Srivastava                                         |
| A8                 | 5,837,251             |                                          | 11/17/1998                     | Srivastava                                         |

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document                                                           | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document                                                                 |
|--------------------|-----------------------|-----------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------|
|                    |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |                                                                                                                    |
| B1                 | WO 95/24923           |                                                                                   | 09/21/1995                     | Mount Sinai School of Medicine of the City University of New York                                                  |
| B2                 | WO 96/37616           |                                                                                   | 11/28/1996                     | The University of North Carolina at Chapel Hill et al.                                                             |
| B3                 | WO 97/06685           |                                                                                   | 02/27/1997                     | Sloan-Kettering Institute for Cancer Research                                                                      |
| B4                 | WO 97/06821           |                                                                                   | 02/27/1997                     | Sloan-Kettering Institute for Cancer Research                                                                      |
| B5                 | WO 97/06828           |                                                                                   | 02/27/1997                     | Sloan-Kettering Institute for Cancer Research                                                                      |
| B6                 | WO 97/10000           |                                                                                   | 03/20/1997                     | Fordham University                                                                                                 |
| B7                 | WO 97/10001           |                                                                                   | 03/20/1997                     | Fordham University                                                                                                 |
| B8                 | WO 97/10002           |                                                                                   | 03/20/1997                     | Fordham University                                                                                                 |
| B9                 | WO 98/12208           |                                                                                   | 03/26/1998                     | The University of New Mexico                                                                                       |
| B10                | WO 98/34641           |                                                                                   | 08/13/1998                     | Fordham University                                                                                                 |
| B11                | WO 98/34642           |                                                                                   | 08/13/1998                     | Fordham University                                                                                                 |
| B12                | WO 98/35705           |                                                                                   | 08/20/1998                     | Whitehead Institute for Biomedical Research                                                                        |
| B13                | WO 99/02670           |                                                                                   | 01/21/1999                     | The Government of the United States as represented by The Secretary of the Department of Health and Human Services |
| B14                | WO 99/07860           |                                                                                   | 02/18/1999                     | Stressgen Biotechnologies Corporation                                                                              |
| B15                | WO 99/24049           |                                                                                   | 05/20/1999                     | Protein Sciences Corporation                                                                                       |
| B16                | WO 00/10597           |                                                                                   | 03/02/2000                     | Immunobiology Limited                                                                                              |

|                                                          |                       |                                                                                                                                                                                                                                                                                                             |                |  |
|----------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--|
| <b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b> |                       |                                                                                                                                                                                                                                                                                                             |                |  |
| Examiner Initials                                        | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.                                              | T <sup>2</sup> |  |
|                                                          | C1                    | Barrios et al., "Mycobacterial heat-shock proteins as carrier molecules. II: The use of the 70-kDa mycobacterial heat-shock protein as carrier for conjugated vaccines can circumvent the need for adjuvants and Bacillus Clamette Guerin priming," Eur. J. Immunol., 22(6):1365-72 (1992) (abstract only). |                |  |
|                                                          | C2                    | Blachere et al., "Heat shock protein-peptide complexes, reconstituted in vitro, elicit peptide-specific cytotoxic T lymphocyte response and tumor immunity," J. Exp. Med., 186(8):1315-22 (1997).                                                                                                           |                |  |
|                                                          | C3                    | Bruschke et al., "An experimental multivalent bovine virus diarrhea virus E2 subunit vaccine and two experimental conventionally inactivated vaccines induce partial fetal protection in sheep," Vaccine, 17(15-16):1983-91 (1999) (abstract only).                                                         |                |  |

|                    |                 |
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| Examiner Signature | Date Considered |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>APPLICANT'S UNIQUE CITATION DESIGNATION NUMBER (OPTIONAL). <sup>2</sup>APPLICANT IS TO PLACE A CHECK MARK HERE IF ENGLISH LANGUAGE TRANSLATION IS ATTACHED.

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| Sheet                         | 2 | 285<br>041 | 2 | Attorney Docket Number   | 28594/38247       |

|     |                                                                                                                                                                                                                                      |  |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| C4  | Lussow et al., "Mycobacterial heat-shock proteins as carrier molecules," Eur. J. Immunol., 21(10):2297-302 (1991) (abstract only).                                                                                                   |  |
| C5  | Perraut et al., "Successful primate immunization with peptides conjugated to purified protein derivative or mycobacterial heat shock proteins in the absence of adjuvants," Clin. Exp. Immunol., 93(3):382-6 (1993) (abstract only). |  |
| C6  | Przeplorka & Srivastava, "Heat shock protein-peptide complexes as immunotherapy for human cancer," Mol. Med. Today, 4(11):478-84 (1998) (abstract only).                                                                             |  |
| C7  | Robert et al., "Phylogenetic conservation of the molecular and immunological properties of the chaperones gp96 and hsp70," Eur. J. Immunol., 31:186-95 (2001).                                                                       |  |
| C8  | Srivastava & Udon, "Heat shock protein-peptide complexes in cancer immunotherapy," Curr. Op Immunol., 6:728-32 (1994).                                                                                                               |  |
| C9  | Srivastava et al., "Heat shock proteins come of age: primitive functions acquire new roles in an adoptive world," Immunity, 8:657-65 (1998).                                                                                         |  |
| C10 | Srivastava, "Purification of heat shock protein-peptide complexes for use in vaccination against cancers and intracellular pathogens," Methods, 12(2):165-71 (1997) (abstract only).                                                 |  |

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<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.